

CLAIMS

- 1) A method for the surface treatment of a metal substrate, consisting in applying, using an electrode, an electrical discharge having a voltage of between 17,000 V and 49,000 V and a frequency of between 18 kHz and 24 kHz on the surface of the metal substrate, whether previously painted or not, to be treated.
- 2) The method according to Claim 1, characterized in that the voltage generated is approximately 30,000 V.
- 3) The method according to Claim 1, characterized in that the frequency used is approximately 22 kHz.
- 4) The method according to any one of the preceding claims, in which the metal substrate is previously painted.
- 5) The method according to Claim 4, in which the paint that coats the metal substrate is further coated by means of lithography, ink printing.
- 6) The method according to the preceding claims, in which the metal substrate is not previously painted.
- 7) A device for the surface treatment of a metal substrate according to the method as per Claims 1 to

3, characterized in that the electrode is constituted by a conductive rod made of stainless steel or aluminium coated with a layer of insulating ceramic material.

8) A metal substrate, in particular for the packaging of foodstuffs, whether previously painted or not treated, according to the method referred to in Claims 1 to 6 and with the device according to Claim 7.